

NEW YORK, N.Y.

Manganese deposits of Slovakia. II. Manganese de-
posits of the Váh Valley. Dimitri Andrusov, Gustav
Šenk and Arnold Németh (Slovak Univ., Bratislava,
Czech.). Geol. Survey 8-10-1961 (11-66) (French summary).
 Small deposits of Mn oxides occur in irregular lenses and
 as impregnations in limestones. The deposits appear to be
 of sedimentary origin. Chem. analyses of 5 ores are given.
 Michael Flischer

66
 2/11

③

NEMCOK, A.

NEMCOK, A. Geological conditions for construction of dams on the Hron River. p.118.

Vol. 7, no. 1/2, 1956, GEOLOGICKY SBORNIK, BRATISLAVA, CZECHOSLOVAKIA.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 10, Oct. 1956.

NEMCOX, A.

"Geologic research for the construction of the Meliata Dam."

p. 147 (Casopia Pro Mineralogii A Geologh, Vol. 2, no. 3, 1957, Czcholovakia)

Monthly Index of East European Accessions (EEAI) LC. Vol. 7, No. 2,
February 1958

NEMCOK, Arnold

CZECHOSLOVAKIA

Docent Dr, C. Sc.

Chair of Constructions, Geology, and Dams, Department
of Construction Engineering SVST (Slovenske Vysoke
Ucenie Technicke - Slovak Institute of Technology)
Gottwaldovo nam. 2, Bratislava

Bratislava, Geologicky Sbornik, No 2, 1962, pp 275-304

"Engineering-Geological Conditions for Use of Water
Power of Hornad and Torysa Rivers"

NEMCOK, Arnold, doc. dr. CSc.

Geologic construction of slopes and its influence on the origin and distribution of landslides in the West Carpathians. Geol sbor 15 no.1:147-155 '64.

1. Chair of Foundation Engineering, Geology and Dams,
Faculty of Building, Slovak Higher School of Technology,
Bratislava, Gottwaldovo namesti 2.

KOPAB, P.

CZECHOSLOVAKIA

Prom. geol.

Geological Institute D. Štúr (Geologický ústav D. Štúra),
Mlynska dolina 1, Bratislava

Bratislava, Geologický Štorník, No 1, 1962, pp. 111-112

"Survey Study of Oriented Sedimentary Structures of
East-Slovakian Flysch"

Co-authors:

NEUBACH, L., prom. geol., Geological Institute D. Štúr,
DURKOVIC, P., prom. geol., "
MARŠČALKO, R., engr, "

NEMCOK, Jan, promovany geolog; KOPAR, Tomas, promovany geolog

Contribution to the geology of Smilno tectonic window and adjacent part of the Magura Flysch. Geol. stor. 14 no.1: 209-215 '63.

1. Dionyz Stur Institute of Geology, Bratislava, Mlynska dolina 1.

EPSTEIN, Berthold, Prof. MUDr.; BABJUK, Jaroslav, PhMr.; NEMCOVA, Alice, MUDr.

Sudden poisoning in children. Cesk. pediat. 13 no.1:1-6 5 Jan 58.

1. Detske oddeleni nemocnice na Bulovce, prednosta prof. Dr. B. Epstein.
Ustredni laborator nemocnice na Bulovce, prednosta Dr. K. Masek. B. B.,
Praha 8, Bulovka.

(POISONING, in inf. & child
(Cz))

PARIZEK, Z.; FOJTU, E.; NEMCOVA, B.

Contribution to more detailed care of children in elementary schools and on improved cooperation with physicians caring for adolescents and regional committees for social welfare. Cesk. pediat. 18 no.6:550-557 Je '63.

1. Oddeleni pece o zenu a dite KUNZ v Ostrave, vedouci MUDr. Z. Parizek.

(SCHOOL HEALTH) (SOCIAL WELFARE) (PHYSICIANS)

NEMCOVA, D.

Experiments in preserving eggs in limewater. p. 310. Vol. 6, no. 6.
1955. PRUMYSL POTRAVIN. Praha.

Source: East European Accessions List (EEAL), LC, Vol. 5, no. 3. March 1956.

PHARMACOLOGY AND TOXICOLOGY

CZECHOSLOVAKIA

JANATA, V.; NEMCOVA, D.; Research Institute of Pharmacy and Biochemistry (Vyzkumny Ustav pro Farmacii a Biochemii), Prague.

"New Disinfectants. I. Palmitic Acid Derivatives Containing a Trimethylammonium Group."

Prague, Ceskoslovenska Farmacie, Vol 15, No 4, May 66, pp 193-197

Abstract [Authors' English summary modified]: Various methods of synthesis of alpha-trimethylammonium derivatives of palmitic acid are discussed. The following substances are reviewed: alpha-bromopalmitic acid and its ethylester; N,N-dimethylaminopalmitic acid and its ethylester; alpha-carbethoxypentadecyltrimethylammonium bromide, and iodide. The properties of these substances are described, and suitable raw materials for their preparation discussed. 11 Western, 15 Czech references. (Manuscript received 8 July 65).

1/1

NEMCOVA, DAGMAR

Determination of phytol and phytadiene and preparation of pure standards. Edward Knobloch, Felix Jančík, Václav Janata, Eduard Kraus, Dagmar Nemcova, and Zdeněk Hradek (Výzkumný ústav farm. biochem., Prague). *Chem. Abstr.* 51, 1879-81(1957). Phytol was detd. as its acetate by infrared spectroscopy at 880 cm^{-1} (in CHCl_3) or 3360 cm^{-1} (in CCl_4); phytadiene at 890 cm^{-1} (in cyclohexane or CS_2). To purify phytol, filter a soln. of crude material in Et_2O (10 g. in 100 ml.) through a 1:1 mixt. of Al_2O_3 and MgO , evap. the Et_2O , fractionate the residue in a mol. still, chromatograph the fraction b. $76-77^\circ$ at $8 \times 10^{-2}\text{ mm.}$ on Al_2O_3 , elute phytadiene with petr. ether and phytol with Et_2O , nb. 1.4635. To prep. phytadiene heat phytol oximate at 10 mm. and $130-40^\circ$ until the (CO_2H) has sublimed, dissolve the residue in Et_2O , wash with NaHCO_3 , evap. and distill through a Vigreux column at 10 mm. , chromatograph the purest fraction, and elute with petr. ether. Weigh 0.3 g. phytol into a 20-ml. flask, add 1.5 g. of a solid prep. from 12 g. Ac_2O and 88 g. pyridine, heat the flask 10 min. at 100° , cool, dil. with 10 ml. H_2O , flush into a 250-ml. flask, and titrate with 0.5N NaOH against phenolphthalein.

M. Hudlick

- [illegible]

MERHAUTOVA, J.; SUKOP, J.; JOACHIMSTHALER, F.; tech. spol. BARTOSOVA, S.;
JURINOVA, I.; MOLDRIKOVA, V.; STASTNA, J.; ZBUZKOVA, E.; NEMCOVA, E.

The effect of athletic education on the physical development, functional
condition and sporting performance in the youth aged 10-12 years.
Cesk. hyg. 7 no.2/3:145-152 '62.

1. Vyzkumny ustav telovychovny, Praha.

(GROWTH in inf & child) (PHYSICAL FITNESS in inf & child)
(SPORT MEDICINE) (PHYSICAL EDUCATION AND TRAINING in inf & child)

BARTONICEK, Robert; NEMCOVA, J.

Protection of acid gas scrubbers by corrosion inhibitors.
Chem prum 12 no.9:493-496 S '62.

1. Statni vyzkumny ustav ochrany materialu G V. Akimova,
Praha.

NEMCOVA, Jitka; BARTONICEK, Robert

Mixture of quinoline and isoquinoline bases as corrosion inhibitor. Chem prua 15 no.1:9-15 Ja '65.

1. G.A.Akimov State Research Institute of Material Protection, Prague.

NEMCOVA, M.; DRAHOZAL, H.

Some cases of encephalitis of unspecific etiology successfully treated with ataractics and Tofranil. Aktiv. nerv. sup. 4 no.2:237 '62.

1. Psychiatricke oddeleni Ustredni vojenske nemocnice, Neurologicke oddeleni Ustredni vojenske nemocnice.

(ENCEPHALITIS ther) (IMIPRAMINE ther)
(TRANQUILIZING AGENTS ther)

Nemcova, S.

Stability of railroad and highway embankments built on the banks
of reservoirs behind dams. p. 176. INZENYRSKE STAVEBY. (Ministerstvo
stavebnictvi) Praha. Vol. 4, no. 4, Apr. 1956.

Source: EEAL LC Vol. 5, No. 10 Oct. 1956

PREISOVA, J.; NEMCOVA, S.; SIMEK, K.

Results of culture & antibiotic treatment in anterior eye segment bacterial infections. Cesk. fysiол. 14 no.4:249-255 Aug 58.

1. Oční klinika MU v Brně, prednosta prof. MUDr. Jan Vanysek--Mikrobiologický ústav SFN b Brně, prednosta prof. MUDr. Václav Tomasek.

(MICROCOCCAL INFECTIONS

anterior eye segment, diag. & antibiotic ther. (Cz))

(ANTIBIOTICS, ther. use

micrococcal infect. of anterior eye segment (Cz))

(EYE DISEASES,

micrococcal infect. of anterior eye segment, diag. & antibiotic ther. (Cz))

NEMCSIK, Pal, tanar

Sociography of the coal miners of Borsod. Borsod szemle 6 no.2:
18-22 '62.

1. Borsodnadasdi általános iskola.

PONTUCH, F.; GAZAREK, F.; DRAC, P.; POKORNY, J.; UHER, M.; HRADECKY, L.;
KOHOUTEK, M.; ZIDEK, J.; CECH, E.; CERVENKA, J.; NEMEC;
NOVAKOVA, J.

Perinatal mortality in premature labor. Cesk. gynek. 29
no.6:459-466 Ag '64.

1. I. gyn.-por. klin. Lek. fak. University Komenskeho v
Bratislave (prednosta prof. dr. S. Stefanik); Gyn.-por.
klin. Lek. fak. Palackeho University v Olomouci (prednosta
doc dr. F. Gazarek, CSc.); Gyn.-por. odd. Mestskeho ustavu
narodniho zdravi v Brne (veduci MUDr. Nemecek); I. gyn.-por.
klin. Lek. Fak. University J.E. Purkyne v Brne (prednosta
prof. dr. L. Havlasek [deceased]); II. gyn.-por. klin. Lek.
fak. University J.E. Purkyne v Brne (prednosta doc. dr. M. Uher,
CSc.); Gyn.-por. klin. Lek. fak. Karlovy University v Plzni
(prednosta prof. dr. V. Mikolas); I. gyn.-por. klin. Fak. vseob.
lek. Karlovy University v Prahe (prednosta prof. dr. K. Klaus,
DrSc.); Gyn.-por. klin. Lek. fak. University P.J. Safarika v
Kosiciach (prednosta doc. dr. K. Poradovsky, CSc.).

NEMEC, A., inz.; MYSLIVEC, T., inz., C.Sc.; PETRICA, J., inz.

Biological efficiency of the Thomas phosphates depending on their P_2O_5 content and solubility. Hut listy 18 no.3:171-179 Mr '63.

1. Ustredni kontrolni a zkusebni ustav zemedelsky, Praha (for Nemecek).
2. Vyzkumny ustav metalurgicky, Vitkovicke zelezarny Klementa Gottwalda, Ostrava (for Myslivec).
3. Ustredni kontrolni a zkusebni ustav zemedelsky, Brno (for Petrica).

KOLMAN, J.M.; MALKOVA, D.; NEMEC, A.; SMETANA, A.; HAJKOVA, Z.; MINAR, J.

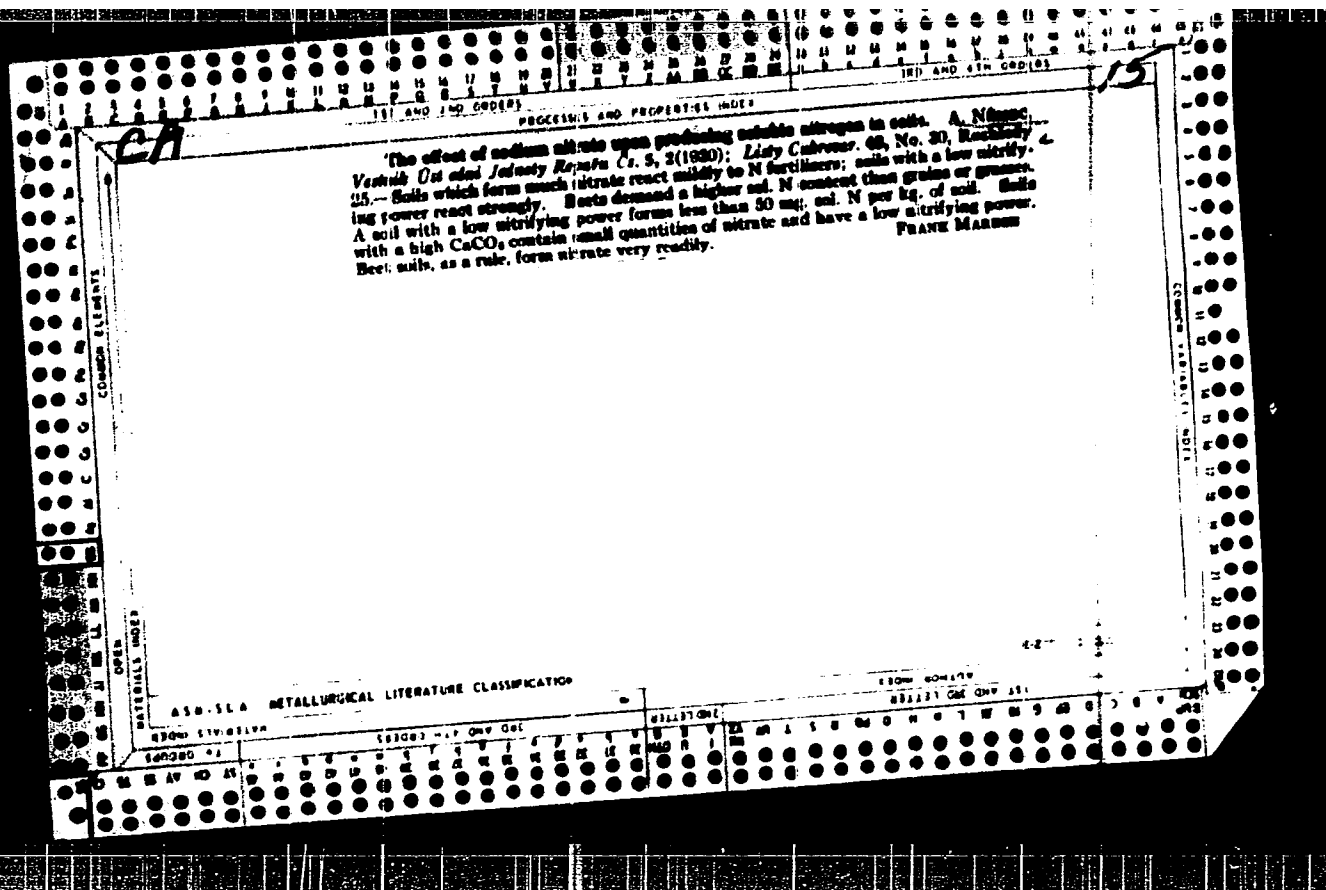
The isolation of the Talya virus from the mosquito *Aedes vexans* in southern Moravia. J. hyg. epidem. (Praha) 8 no.3:380-386 '64

1. Institute of Parasitology, Czechoslovak Academy of Sciences, Prague.

117 AND 121 OVERS		PROCESSING AND RECEPTIONS INDEX		117 AND 121 OVERS	
<i>ca</i> The influence of calcium upon the resorption of phosphorus and potassium from soils. <i>Ann. Agric. Univ. M. Guelph, Ont. 7, 489(1935); Lloy. C. G. v. 10, 1935, No. 12.</i>—Conflicting views exist in the literature concerning the effect of CaCO_3 on the resorption of P_2O_5 and K_2O studied by the Neubauer method. The possible effects are: (1) CaCO_3 lowers the resorption of P_2O_5 (Opitz and Bannai). (2) The rate of P_2O_5 may be increased by CaCO_3 (Drost), but the resorption of K_2O remains unchanged. (3) Neither P_2O_5 nor K_2O resorption is increased by CaCO_3 (Gardner) and (Lammertsen). (4) CaCO_3 lowers the resorption of K_2O and P_2O_5 (Schubert) (Brenner). (5) CaCO_3 stimulates the absorption of K_2O and P_2O_5 (Wang). (6) CaCO_3 affects the P_2O_5 into an insol. form (Kouroukian). <i>N. and C. and several soils in studying the effect of CaCO_3 upon the resorption of K_2O and P_2O_5.</i> Conclusion: It is not possible to set any relation between the natural Ca content and the resorption of P_2O_5. There is a apparent relation between the changes in K_2O and P_2O_5 and a rise of CaCO_3, when compared to the K_2O and P_2O_5 available to plants. The increased absorption of K_2O and P_2O_5 under the influence of CaCO_3 was demonstrated only in soils deficient in CaO (acid soils); soils with an adequate supply of CaO showed a depression in the resorption of K_2O and P_2O_5. Also, the effect of CaCO_3 upon the resorption of P_2O_5 is greatest in soils which contain a small quantity of P_2O_5 available for plant life; in soils rich in a available P_2O_5, the CaCO_3 acts as a depressant. The same results are obtained for K_2O, but the results are not so regular. P M					
15					
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION					
5900 STEEL		5900 STEEL		5900 STEEL	
5900 STEEL		5900 STEEL		5900 STEEL	

		ALPHABETIC INDEX																										NUMERIC INDEX																										SUBJECT INDEX																																																																																																							
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	1	2	3	4	5	6	7	8	9	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99																						
	CA																																																																																																																																																												
The influence of light and temperature upon the resorption of potassium and phosphorus from soils. M. GRACHTEN AND A. NÄNBERG. <i>Zemmelius Arch.</i> 9, 537 (1938); <i>Lary Culture</i>, 45, No. 25, <i>Reinhold</i> 31(1937).—With the Weissmann method, K₂O and P₂O₅ are more absorbed in diffuse light than in direct light. According to the Neubauer method, light has no effect upon the absorption. From the Möhnke method, the absorption did not decrease with an increase in the diffusion of light; it was minimal in the dark. For K₂O, the resorption increased in diffuse light and also in the dark; these differences are so small that they may be due to differences in the radiation intensity of the season. The effect of temp. is another factor which has to be considered with the effect of light. The resorption of P₂O₅ during intense radiation of the summer months is lower than that during the diffuse radiation of the winter season; the reverse is true for K₂O. The greater resorption of K₂O during the intense radiation is due to an increased leaf area and intensity of photosynthetic reactions. The lowered resorption of P₂O₅ is caused, with an increased transpiration and a greater evapn. of H₂O from the soil; this decreases the availability of the P₂O₅, so that the effect of light is an indirect one. The resorption of K₂O and P₂O₅ is lowered with a decrease in temp. The effect of various wave lengths was also studied with reference to daylight: green, blue and red light decreases the resorption of ash. For P₂O₅, the differences were insignificant. For K₂O, the resorption is lowered with green light and increased with red and blue. F. M.																																																																																																																																																													
ASS. SLA METALLURGICAL LITERATURE CLASSIFICATION																																																																																																																																																													
FROM SOURCE																																																																																																																																																													
UNCLASSIFIED																																																																																																																																																													

LITERATURE SOURCE		SUBJECTS AND PROPERTIES INDEX		RD AND 4TH CROSS	
BC				B-III-1	
Rapid colorimetric method for determining the ortho-carboxyl phosphates in soils. A. HANCO [with J. KANTO and A. KROVINA] (Vegetation, Chiknadov, Park Instat Vsesoyuzn., 1959, 6, (3); Biol. Zentr., 1959, 59, 482-489; 2 pages) (C.A.B.) The citric acid extract of soil (20 g. of soil + 100 cc. of 1% citric acid solution) is heated to boiling with 20 cc. of 50% sulphuric acid and the clear acid distilled with 0.1N. permanganate. One of the latter is removed by hydrogen peroxide. After further heating for 30 min., a few drops of a saturated solution of 2:4-dinitrophenol in 50% alcohol are added, followed by ammonia until the appearance of a yellow color (pp. 6-8 appear). The phosphate is then determined colorimetrically by means of ammonium molybdate and stannous chloride. By the use of a smaller soil sample than is customary determinations may be made in soils rich in calcium carbonate. A. G. FOLLAND.					
ASB-SLS METALLURGICAL LITERATURE CLASSIFICATION		RD DONATION		6-87 HOTEL-CROSS	
RDON STUDYING		SEARCH HAS DIV ONE		CLASSIFY ONE DIV TWO	
LONDON 75		SEARCH HAS DIV ONE		CLASSIFY ONE DIV TWO	



C

A colorimetric determination of phosphoric acid in soils. A. Năncuș, Lădaru Kozlovă. Văditiv sauți vphosphorului din soluri amoniacale și, 19(1987); 2007; (Abstract) No. 4, Ruzhsky 2.—The König-Lomemann method requires a long time for analysis, and soils high in Ca make the ignition of citrate salts very difficult. For soils high in Ca have to have a correction factor) for 1 hr. Repeat the process for 1 hr. on a subsequent day. Filter or centrifuge, treat 5 cc. of the clear soln. with 10 cc. of 40% H₂O₂, bring to a boil, and treat with 0.1 N KMnO₄ until a faint but permanent pink bath for 30 min., drain into a 100 cc. vol. flask, treat with 4 drops of α-dinitrophenol, and neutralize with 18% NH₄OH. Cool the soln. and treat with 2 cc. molybdic acid and 0.2 cc. SnCl₄. This produces a blue color; make up the soln. to 100 cc. and compare colorimetrically. The standard soln. is made from K₂HPO₄; contg. 0.05-0.5 P₂O₅ per 10 cc. The values run higher than those with the K.-L. method; N. ascribes this to a more thorough extn.

FRANK MARSH

15

FROM DONOR
ATTACHED SHEET NO. 1

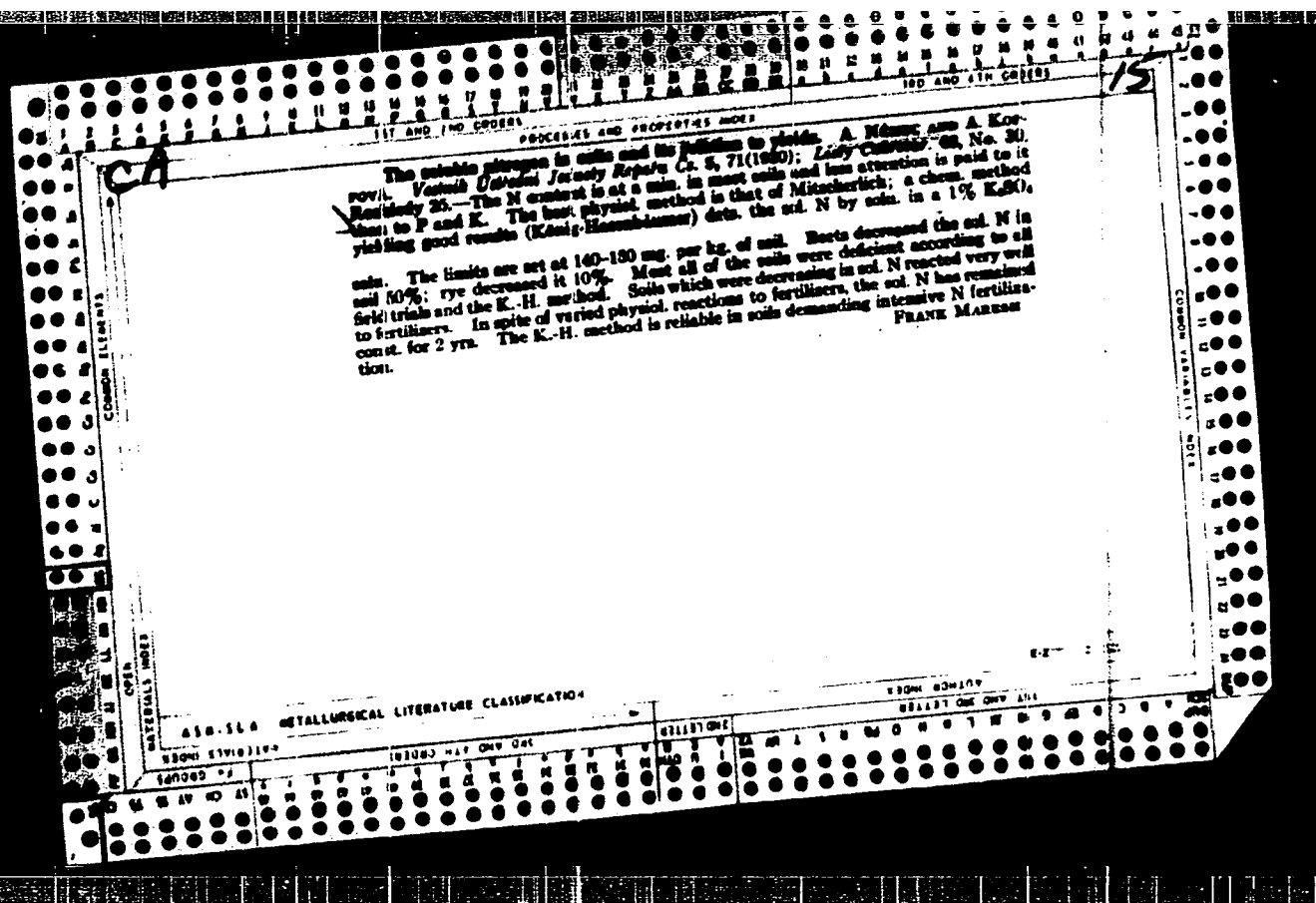
RESEARCH REPORT
NO. 100000-100-000-000

MATERIALS INDEX

OPEN

CHROMIUM ELEMENTS

ADDITIONAL METALLURGICAL LITERATURE CLASSIFICATION



		PROCESSING AND PROPERTIES INDEX																										150 AND 4TH ORDERS																									
		STANDARD AND PROPERTY INDEX																										15																									
CA		The analysis of soil for determining the action of phosphate fertilizer. A Nansen. <i>Vestnik Ostrogozskoy Respubl. Co. No. 9, 177(1930)</i>; <i>Litv. Kubrenar.</i> 48, 194-95; <i>Russkij</i> 37; cf. C. A. 24, 3393.—N. differentiates between a "necessary fertilizer" and the "effect of a fertilizer upon yields" in a free field. Discrepancies between the results of a chem. analysis and yields in the field are due to the presence of sol. compds. of metals in the soil, especially Fe, which bind the sol. forms of H_2PO_4. Field trials with graded doses of superphosphate added to potatoes and sugar beets show that in soils poor in P_2O_5, the yield is not increased after the addition of the superphosphate; if the latter contains more than 40 mg. Fe_2O_3 per kg. Soils contg. much sol. Fe are deficient in Ca. The Ca deficiency disturbs the soil equil., compds. of Fe, Al, etc., become very sol. and combine with the H_2PO_4 from which it becomes difficult for the plant to derive the necessary P.																																																			
CLASSIFICATION		ASD-SLA METALLURGICAL LITERATURE CLASSIFICATION																																																			
MATERIALS INDEX		821371 Qst Qst 151																																																			

CIA-RDP86-00513R001136510012-1"

100 AND 4TH FLOOR

1ST AND 2ND FLOOR

PROCESS AND PROPERTIES INDEX

COMMON ELEMENTS

OPEN

MATERIALS INDEX

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

FROM 17103119

SEARCHED SERIALIZED

INDEXED FILED

1968

1969

1970

1971

1972

1973

1974

1975

1976

1977

1978

1979

1980

1981

1982

1983

1984

1985

1986

1987

1988

1989

1990

1991

1992

1993

1994

1995

1996

1997

1998

1999

2000

2001

2002

2003

2004

2005

2006

2007

2008

2009

2010

2011

2012

2013

2014

2015

2016

2017

2018

2019

2020

2021

2022

2023

2024

2025

2026

2027

2028

2029

2030

2031

2032

2033

2034

2035

2036

2037

2038

2039

2040

2041

2042

2043

2044

2045

2046

2047

2048

2049

2050

2051

2052

2053

2054

2055

2056

2057

2058

2059

2060

2061

2062

2063

2064

2065

2066

2067

2068

2069

2070

2071

2072

2073

2074

2075

2076

2077

2078

2079

2080

2081

2082

2083

2084

2085

2086

2087

2088

2089

2090

2091

2092

2093

2094

2095

2096

2097

2098

2099

2100

2101

2102

2103

2104

2105

2106

2107

2108

2109

2110

2111

2112

2113

2114

2115

2116

2117

2118

2119

2120

2121

2122

2123

2124

2125

2126

2127

2128

2129

2130

2131

2132

2133

2134

2135

2136

2137

2138

2139

2140

2141

2142

2143

2144

2145

2146

2147

2148

2149

2150

2151

2152

2153

2154

2155

2156

2157

2158

2159

2160

2161

2162

2163

2164

2165

2166

2167

2168

2169

2170

2171

2172

2173

2174

2175

2176

2177

2178

2179

2180

2181

2182

2183

2184

2185

2186

2187

2188

2189

2190

2191

2192

2193

2194

2195

2196

2197

2198

2199

2200

2201

2202

2203

2204

2205

2206

2207

2208

2209

2210

2211

2212

2213

2214

2215

2216

2217

2218

2219

2220

2221

2222

2223

2224

2225

2226

2227

2228

2229

2230

2231

2232

2233

2234

2235

2236

2237

2238

2239

2240

2241

2242

2243

2244

2245

2246

2247

2248

2249

2250

2251

2252

2253

2254

2255

2256

2257

2258

2259

2260

2261

2262

2263

2264

2265

2266

2267

2268

2269

2270

2271

2272

2273

2274

2275

2276

2277

2278

2279

2280

2281

2282

2283

2284

2285

2286

2287

2288

2289

2290

2291

2292

2293

2294

2295

2296

2297

2298

2299

2300

2301

2302

2303

2304

2305

2306

2307

2308

2309

2310

2311

2312

2313

2314

2315

2316

2317

2318

2319

2320

2321

2322

2323

2324

2325

2326

2327

2328

2329

2330

2331

2332

2333

2334

2335

2336

2337

2338

2339

2340

2341

2342

2343

2344

2345

2346

2347

2348

2349

2350

2351

2352

2353

2354

2355

2356

2357

2358

2359

2360

2361

2362

2363

2364

2365

2366

2367

2368

2369

2370

2371

2372

2373

2374

2375

2376

2377

2378

2379

2380

2381

2382

2383

2384

2385

2386

2387

2388

2389

2390

2391

2392

2393

2394

2395

2396

2397

2398

2399

2400

2401

2402

2403

2404

2405

2406

2407

2408

2409

2410

2411

2412

2413

2414

2415

2416

2417

2418

2419

2420

2421

2422

2423

2424

2425

2426

2427

2428

2429

2430

2431

2432

2433

2434

2435

2436

2437

2438

2439

2440

2441

2442

2443

2444

2445

2446

2447

2448

2449

2450

2451

2452

2453

2454

2455

2456

2457

2458

2459

2460

2461

2462

2463

2464

2465

2466

2467

2468

2469

2470

2471

2472

2473

2474

2475

2476

2477

2478

2479

2480

2481

2482

2483

2484

2485

2486

2487

2488

2489

2490

2491

2492

2493

2494

2495

2496

2497

2498

2499

2500

2501

2502

2503

2504

2505

2506

2507

2508

2509

2510

2511

2512

2513

2514

2515

2516

2517

2518

2519

2520

2521

2522

2523

2524

2525

2526

2527

2528

2529

2530

2531

2532

2533

2534

2535

2536

2537

2538

2539

2540

2541

2542

2543

2544

2545

2546

2547

2548

2549

2550

2551

2552

2553

2554

2555

2556

2557

2558

2559

2560

2561

2562

2563

2564

2565

2566

2567

2568

2569

2570

2571

2572

2573

2574

2575

2576

2577

2578

2579

2580

2581

2582

2583

2584

2585

2586

2587

2588

2589

2590

2591

2592

2593

2594

2595

2596

2597

2598

2599

2600

2601

2602

2603

2604

2605

2606

2607

2608

2609

2610

2611

2612

2613

2614

2615

2616

2617

2618

2619

2620

2621

2622

2623

2624

2625

2626

2627

2628

2629

2630

2631

2632

2633

2634

2635

2636

2637

2638

2639

2640

2641

2642

2643

2644

2645

2646

2647

2648

2649

2650

2651

2652

2653

2654

2655

2656

2657

2658

2659

2660

2661

2662

2663

2664

2665

2666

2667

2668

2669

2670

2671

2672

2673

2674

2675

2676

2677

2678

2679

2680

2681

2682

2683

2684

2685

2686

2687

2688

2689

2690

2691

2692

2693

2694

2695

2696

2697

2698

2699

2700

2701

2702

2703

2704

2705

2706

2707

2708

2709

2710

2711

2712

2713

2714

2715

2716

2717

2718

2719

2720

2721

2722

2723

2724

2725

2726

2727

2728

2729

2730

2731

2732

2733

2734

2735

2736

2737

2738

2739

2740

2741

2742

2743

2744

2745

2746

2747

2748

2749

2750

2751

2752

2753

2754

2755

2756

2757

2758

2759

2760

2761

2762

2763

2764

2765

2766

2767

2768

2769

2770

2771

2772

2773

2774

2775

2776

2777

2778

2779

2780

2781

2782

2783

2784

2785

2786

2787

2788

2789

2790

2791

2792

2793

2794

2795

2796

2797

2798

2799

2800

2801

2802

2803

2804

2805

2806

2807

2808

2809

2810

2811

2812

2813

2814

2815

2816

2817

2818

2819

2820

2821

2822

2823

2824

2825

2826

2827

2828

2829

2830

2831

2832

2833

2834

2835

2836

2837

2838

2839

2840

2841

2842

2843

2844

2845

2846

2847

2848

2849

2850

2851

2852

2853

2854

2855

2856

2857

2858

2859

2860

2861

2862

2863

2864

2865

2866

2867

2868

2869

2870

2871

2872

2873

2874

2875

2876

2877

2878

2879

2880

2881

2882

2883

2884

2885

2886

2887

2888

2889

2890

2891

2892

2893

2894

2895

2896

2897

2898

2899

2900

2901

2902

2903

2904

2905

2906

2907

2908

2909

2910

2911

2912

2913

2914

2915

2916

2917

2918

2919

2920

2921

2922

2923

2924

2925

2926

2927

2928

2929

2930

2931

2932

2933

2934

2935

2936

2937

2938

2939

2940

2941

2942

2943

2944

2945

2946

2947

2948

2949

2950

2951

2952

2953

2954

2955

2956

2957

2958

2959

2960

2961

2962

2963

2964

2965

2966

2967

2968

2969

2970

2971

2972

2973

2974

2975

2976

2977

2978

2979

2980

2981

2982

2983

2984

2985

2986

2987

2988

2989

2990

2991

2992

2993

2994

2995

2996

2997

2998

2999

3000

3001

3002

3003

3004

3005

3006

3007

3008

3009

3010

3011

3012

3013

3014

3015

3016

3017

3018

3019

3020

3021

3022

3023

3024

3025

3026

3027

3028

3029

3030

3031

3032

3033

3034

3035

3036

3037

3038

3039

3040

3041

3042

3043

3044

3045

3046

3047

3048

3049

3050

3051

3052

3053

3054

3055

3056

3057

3058

3059

3060

3061

3062

3063

3064

3065

3066

3067

3068

3069

3070

3071

3072

3073

3074

3075

3076

3077

3078

3079

3080

3081

3082

3083

3084

3085

3086

3087

3088

3089

3090

3091

3092

3093

3094

3095

3096

3097

3098

3099

3100

3101

3102

3103

3104

3105

3106

3107

3108

3109

3110

3111

3112

3113

3114

3115

3116

3117

3118

3119

3120

3121

3122

3123

3124

3125

3126

3127

3128

3129

3130

3131

3132

3133

3134

3135

3136

3137

3138

3139

3140

3141

3142

3143

3144

3145

3146

3147

3148

3149

3150

3151

3152

3153

3154

3155

3156

3157

3158

3159

3160

3161

3162

3163

3164

3165

3166

3167

3168

3169

3170

3171

3172

3173

3174

3175

3176

3177

3178

3179

1ST AND 2ND ORDER										3RD AND 4TH ORDER									
PROCESSES AND PROPERTIES INDEX																			
<i>cc</i> Fertilizing with carbohumate. A. NEMEC. <i>Chemical Industry Report</i> <i>Castroville, 1932, 17, Lasty Cadaver, 50, No. 30, Rustless, 21</i> The carbohumate was prepd from brownish refuse according to Kilm's method. It contained 1% N and 20.6% mineral substance. 93% of the solid matter was sol. in H₂O. $pH = 8.38$, and 60% of the humin substances were sol. in H₂O. The addn. of 0.2% increased the nitrify- ing property of the soil; 1.2% increased the resorption of P and K in soils low in C. Field expts. with sugar beets gave variable results. FRANK MARRAS																			
ADD-51.6 METALLURGICAL LITERATURE CLASSIFICATION																			

1ST AND 2ND SECTIONS										3RD AND 4TH SECTIONS									
PROCESSING AND PROPERTIES INDEX																			
CP										15									
The action of some current nitrogenous fertilizers upon the yield of sugar beets. <i>Ann. Nitrac.</i> <i>Vestnik Republiki</i> 1933, 10; <i>Listy Cukrovar</i> 51, No. 25, Rozhledy 17 — Nitrochall (I) from England, "kalkummonosalt peter" (II) from Germany, Ostravian salt peter (III) and "nitrofus" (IV) from Czechoslovakia were equal to mixts. of Chilean salt peter and $(\text{NH}_4)_2\text{SO}_4$ in soils growing sugar beets. I and III contain 18.6% N equally distributed between nitrate and NH_4 and 55% CaCO_3. II contains 20.6% N and 35% CaCO_3. IV contains 18.6% N (distributed equally between nitrate and NH_4) and 15-16% H_3PO_4 (8-10% of the H_3PO_4 is sol. in citric acid). The N fraction of the mixt. is very sol. in the soil and leaves a slowly dissolving CaCO_3 residue. The P and N combination increases the solv. of P in soils. The preps. do not cause a hardening of the soil surface as preps. of NaNO_3 commonly do. FRANK MARSH																			
ASO-SLA METALLURGICAL LITERATURE CLASSIFICATION																			
FROM STUDYING																			
GROUPS										GROUPS									
GROUPS										GROUPS									

ca

PROCESSED AND PROPERTIES INDEX

Determination of nitrate in soils. A. J. J. J. and A. Koppová. Z. Pflanzenernähr. Döngew. Bodenk. 19A, 182-8 (1933). Cf. C. A. 28, 4000. In the $\text{Ca}_2\text{O}(\text{OH})(\text{SO}_4\text{H})$ method, clarification of the soil ext. with $\text{Al}(\text{OH})_3$ leads to higher recorded values than when CaO is used. Presence of Cl^- in the ext. leads to loss of N during analysis. The xyleneol method (Blom and Treachow, C. A. 29, 4994) avoids this error by removal of Cl during the pretreatment with KMnO_4 . In soils poor in NO_3^- , oxidation of NO_3^- and NH_4^+ -acids may cause unduly high values by this method. B. C. A.

ASSOCIATE METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS		PROCESSING AND PROPERTY INDEX		100 AND 4TH ORDERS	
Field experiments with graded additions of 40 per cent potassium salts in the years 1927-1930. Ant. Nemes. <i>Slovak Vojna. United Lenditany CSR. No. 164 (1931). Luty Cukrov. 22, No. 26, Ruzhky 9.</i>—Two exper. with sugar beets are mentioned. In both the yield of roots was increased 25 q. per ha. for an addn. of 60 kg. K_2O per ha., 48 q. per 90 kg. K_2O, 48 q. per 120 kg. K_2O and 60 q. per 180 kg. K_2O over the control beets in the same fields to which K was not added. At Ruzhky the yield of beets increased 19 q. per 60 kg. K_2O per ha., 10 q. per 90 kg. K_2O, 14 q. per 120 kg. K_2O and 24 q. per 180 kg. K_2O per ha. The sugar concn. increased 0.4% for 60 kg. K_2O per ha., 0.6% for 90 kg., 0.7% for 120 kg. K_2O and 0.8% for 180 kg. K_2O; for the same resp. addns. of K_2O the yield of sugar increased 2.7, 2.1, 2.0 and 4.3 q. per ha. over the controls; likewise the increase in the wt. of greens over the controls was 13, 15, 23 and 32 q. per ha. Frank Mareš					
ASB-11A METALLURGICAL LITERATURE CLASSIFICATION					
FROM DIVISION					
DATE OF ACQUISITION					
DATE OF DEPOSIT					

1ST AND 2ND CODES										3RD AND 4TH CODES									
PROCESSING AND PROPERTIES INDEX																			
15 Biochemical study of the influence of robbing the forest Aid on the soil and growth. Ant. Nemes, Shorokh Traden. Akad. nauk. No. 103, 1990(1953). J. K.																			
ASU-514 METALLURGICAL LITERATURE CLASSIFICATION																			
EDM DIVISION										EDM DIVISION									
EDM DIVISION										EDM DIVISION									

15

ca

Dirin's method of determination of phosphoric acid in soil. Antonia Menez and Enzo Pohl. *Visuale Chimica*. 1964. 17-20(20-3 in German) (1964). —The method of Dirin and Schaffer (C. A. 28, 1018) has been modified in the following way: Add to 50 cc. of soil ext. prep. according to Dirin 1 cc. 25% H₂SO₄, heat to boiling and add drop by drop 0.1 N K₂Cr₂O₇ until decoloration is difficult to obtain. Remove excess of K₂Cr₂O₇ by means of 0.5% H₂O₂ (1-2 drops). Evap. to 10-15 cc. on the water bath and rinse into a 50-cc. volumetric flask. After thorough cooling add 1 cc. 25% aq. NaH₂PO₄ and fill to the mark. Add SnCl₄ soln. (according to Athine), shake thoroughly. Add to the mark and shake again. J. Kudara

ASH-S.A. METALLURGICAL LITERATURE CLASSIFICATION

EDWIN STYRELLS

GEORGE WATSON

COLLISION

RECEIVED ONE COPY 191

15

CO

PROCESSES AND PROPERTIES INDEX

The chloride content of soils and the influence of chloride-free and chloride-containing potash fertilizers upon potatoes. Antonia Nemes, Z. Pflanzenernähr., Dungs. Bodenk. 36A, 246-50(1964). On 6 soils investigated, the one with highest Cl content, 69 and 88 p. p. m. in surface and subsoil, resp., although lowest in 1% citric acid-sol. K_2O , showed no significant increase in yield and H_2O -sol. K_2O , but significant decreases in yield of starch on the effect of these fertilizers contg. Cl. On 2 soils with 3 p. p. m. Cl and intermediate sol. K_2O , K_2SO_4 produced greater increases in yield and starch content than Cl-contg. fertilizers. The latter increased yields but generally depressed percentage of starch in tubers on soils low in Cl. C. J. Schoellenger

ASB-31A METALLURGICAL LITERATURE CLASSIFICATION

6-2

15

CA

INFLUENCE OF SOIL FORMING ON THE PHYSICAL AND CHEMICAL PROPERTIES OF SOIL IN STATE FOREST RESERVE IN SLOVAKIA. ANT. NEMEC. Sbornik Českoslov. Akad. Zemědělské vědy, 1937, (1935). In soil on which potatoes had been cultivated for 3 yr., as compared to pine-forest soil, the upper 20 cm. was higher in P and K and the next 20 cm. was lower in P and K. The cultivation of potatoes in poor sand forest soil resulted in considerable decrease of P. Kufner

1ST AND 2ND COPIES										3RD AND 4TH COPIES									
PROCESSING AND PROPERTIES INDEX																			
<i>co</i> The influence of phosphorus fertilization on the growth of nursery spruce in the chalk soil of the region Pilsch and Obft. Antonin Ngruc, <i>Shvold Cochesloe. Abad. Zlad. 18, 27-27</i> (in German 47) (1938).—In the years 1933-3 1-year-old spruce cultures were fertilized with increasing amounts of superphosphate and Thomas meal in addition to $(NH_4)_2SO_4$ and K salt. Tallest plants were obtained with highest P fertilization in sandy clay, especially with Thomas meal. Also the fresh wt. of the plants increased, the optimum being reached with highest P fertilization. The influence of the fertilization was very marked on the mineral constituent of spruce needles. P fertilization increased the P content, as well as the Ca and K contents of dry matter and ash; it acted favorably on the P/N ratio. The compas. of org. plant constituents were not markedly influenced by P fertilization. Similar results were obtained in a one-sided P fertilization exp. (1930-1). The max. P_2O_5 resorption, however, was observed in unfertilized plants. J. Kubera																			
ASB-11A METALLURGICAL LITERATURE CLASSIFICATION 83001 514-01174 103003 4-1 014 001 031131 001 031131 001 014 001																			

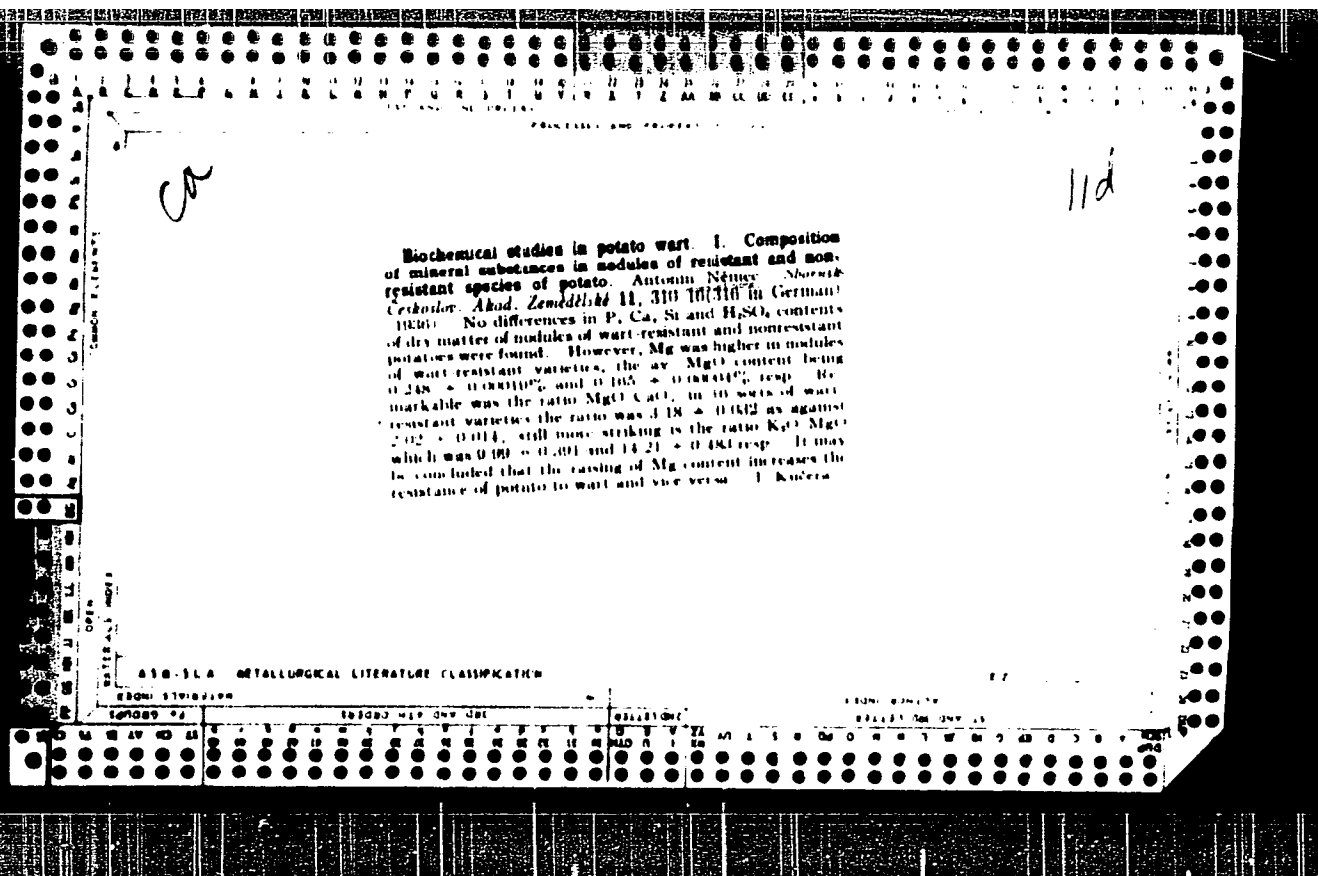
1ST AND 2ND COVERS										3RD AND 4TH COVERS									
PROCESSING AND PROPERTIES INDEX																			
<i>ca</i> The chemical character of soils infested with potato caracumata. Antonin Novak. <i>Zemědělská Archivy</i> 26, 120-22 (1935); <i>Chem. Abstr.</i> 15, Abstracts 150.—Soils heavily infested with potato caracumata and from arable regions (northern and southern Bohemia) had identical chem. compn. They were rich in humus, N, P_2O_5, K_2O in assimilable forms, and had a mild to strong acid reaction. The Mg and Ca contents were low. Frank Mareš																			
ADD-518 METALLURGICAL LITERATURE CLASSIFICATION																			
FROM STEELING										FROM STEELING									
10000 #2										10000 #2									

CA

14

The influence of cultivation on nitrification of forest soil in the Adamov region in Slovakia. Antonín Nířný and Bohuslav Maňan. *Sborník Českoslov. Akad. Zool.-dřevh. 11*, 367-74 (1974-5 in German) (1936).—The results of 2 years' cultivation of potatoes between pine cultures on poor sand forest soil are summarized. Conclusion. The favorable action of potato cultivation in forests can be seen in increased H_2O and N contents of the soil
J. Kučera

A S O 350 METALLURGICAL LITERATURE CLASSIFICATION

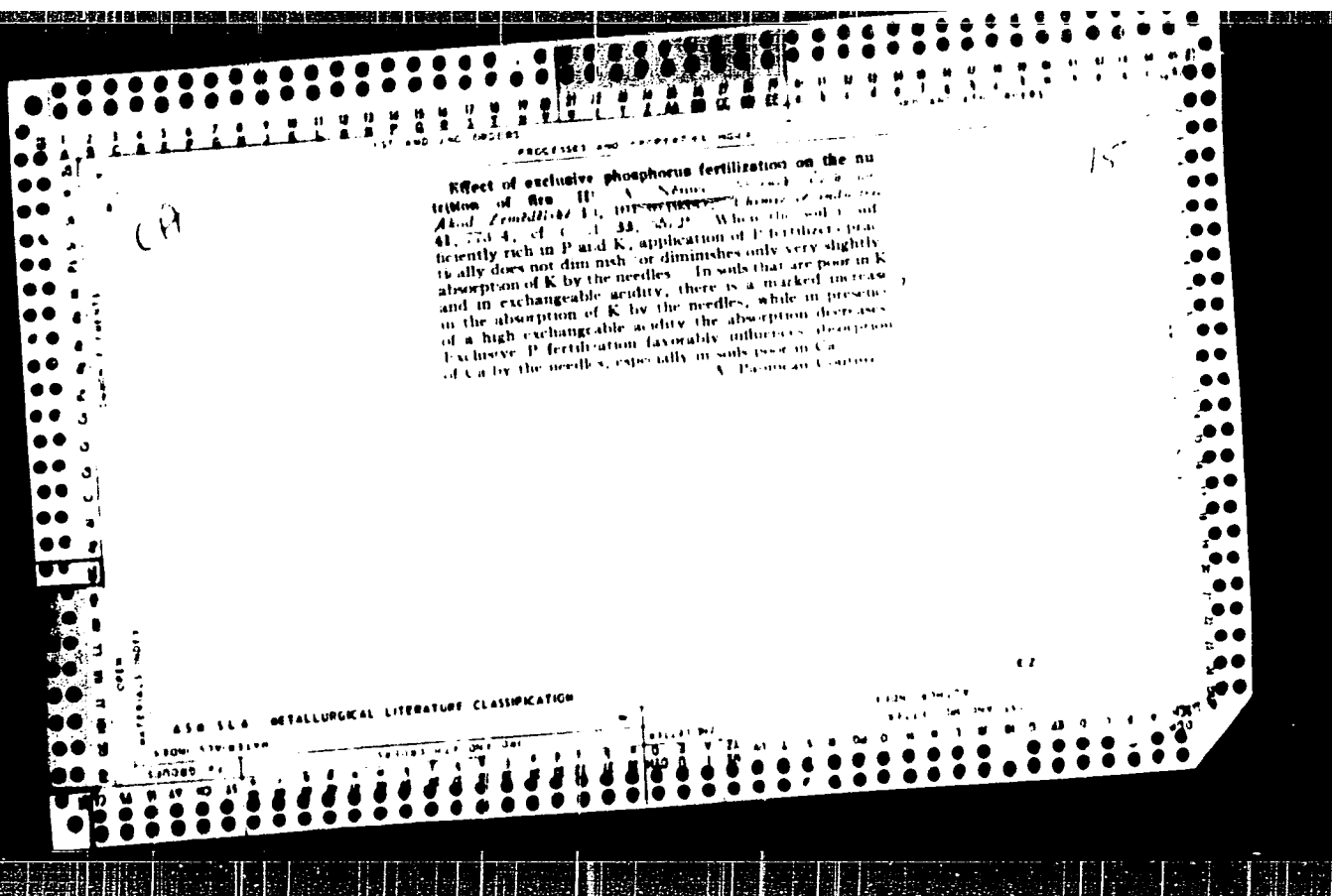


15

Investigation on the determination of food for plants by the procedure of A. V. Tognoni. A. V. Tognoni, Z. Pflanzenernähr., Düngung Bodenk. 45, 143-144 (1957). With air. calc., the v. B. HNO₃-extra. method indicates a lower value for available K₂O than the Neubauer eye-measuring test. The Lammertsen direct acid extra. (cf. C. A. 54, 4247) likewise shows a similar reduction, although the effect of CaCO₃ upon the calc. of K₂O is less than with that of FeO. The chem. calc. of K₂O reserves indicated by both methods as compared with the amt. available to plants is likewise diminished by colloidal clay. Comparison of the indications of these chem. and physical tests with the results of field expts. on K₂O fertilization of sugar beets are in general agreement with the conclusions of Jensen and Leach (C. A. 23, 3487) that limiting values for K₂O are 18 mg./100 g. for the v. B., 15 mg./100 g. for the L. and 20 mg./100 g. for the Dürst method, although in N.'s experience 15 mg./100 g. is a better value for the v. B. method. The results from fertilization depend not only on the reserves of avail. K₂O in the soil, but also on the nature of the soil, whether predominantly colloidal or sandy. C. J. Schellberger

157 AND 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000

1ST AND 2ND COPIES		PROCESS AND POSTPAID INDEX		3RD AND 4TH COPIES	
ca 15 The influence of nitrogen fertilization on the growth of small plantations in forest nurseries. A. Némec. <i>Sborník Českoslov. Akad. Věd</i> 12, 49-7(1957). The results on the unbalanced fertilization of pine trees 1 year old with Na and Ca nitrate and (NH₄)₂SO₄ (5.5 lb. was introduced in the first year and 0.5 lb. of N in the second year per 100 sq. m. of field) gave the following results: on the soils poor in P₂O₅ and Ca, unbalanced fertilization did not improve the growth of trees. On soils rich in P₂O₅ (more than 110 mg. in 5 lb. of soil in the ext. of 1% of citric acid), N fertilization had a good influence on the growth of trees. V. D. Karpenko		ASAC-SLA METALLURGICAL LITERATURE CLASSIFICATION FROM SYNOBOL		FROM SERIALS SERIALS ONE COPY ALL	
1-10000 +2		100000 HLT DIV 01		COLLISIONE	



A

B

C

D

E

F

G

H

I

J

K

L

M

N

O

P

Q

R

S

T

U

V

W

X

Y

Z

AA

AB

AC

AD

AE

AF

AG

AH

AI

AJ

AK

AL

AM

AN

AO

AP

AQ

AR

AS

AT

AU

AV

AW

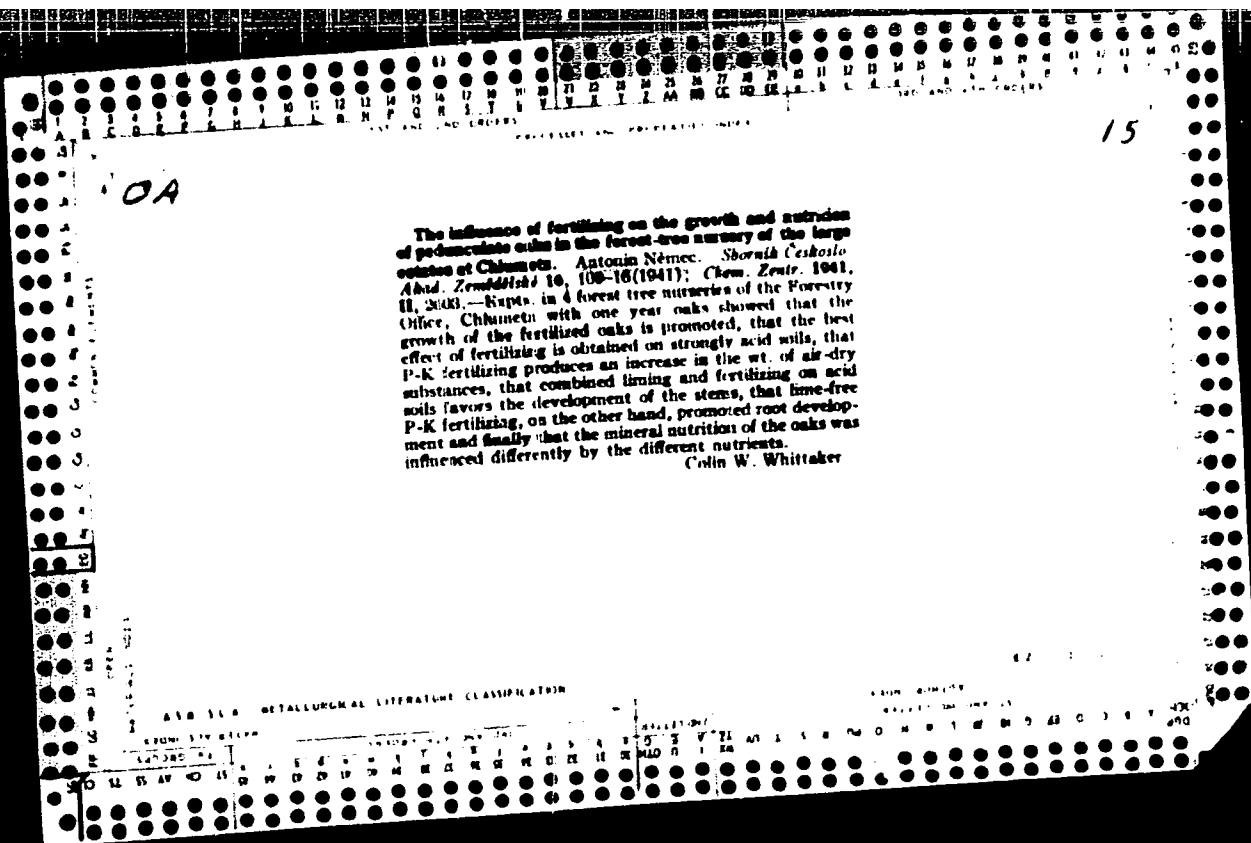
AX

CA

Effect of exclusive fertilization with potassium salt and kainite on the nutrition of pines in forest nurseries. I. The effect on the potassium and phosphoric acid uptake
 Antonij Njeguš, *Borbenik Crk. dr. H. Zvez. Zvezodis. 14, 276 (1933). Chem. Zvez. 10(4), 275.* (1 preceding article.)
 The K_2O uptake of needles depends on the K_2O supply in the soil. Fertilization with K_2O salts effectively on soils with a good supply of Ca^{++} cations is better on soils poor in Ca^{++} . On soils poor in P^{+++} , fertilization with K_2O only has little effect on the K_2O uptake of needle. High CaO content adversely affects the mobilization of P^{+++} by K_2O . H. E. Wirth.

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001136510012-1"



GA 15

The chemical composition of soil from lake bottoms in Třeboňsko compared to the natural increment of fish Antonín Němec and Jarmila Fastrová. *Šnorák (Časopis Zemědělské 17, 84 7/1942)*. Soil specimens collected to a depth of 20 cm from 12 fish ponds as well as water specimens from the soil specimen locality were analyzed for total and soil N, exchangeable acidity, pH, K_2O , CaO , MgO , P_2O_5 , SO_4 , NO_3 , Fe_2O_3 , Al_2O_3 and MnO_2 (acid by 1% citric acid). From the results of analysis it is evident that in soils from the fish pond bottoms content more than 1500 mg CaO per kg of soil, the increment of fish depends upon water-sol. K present in the soil except when the bottom is covered by a heavy vegetation which absorbs the sol. K and sometimes contains 3% K in its ash. In soils containing less than 1500 mg CaO per kg the increment of fish was lower in spite of the fact that the soil was supplied with an abundance of sol. K_2O (ca. 200 mg/l) and P_2O_5 . The fish failed to increase in the soils rich in Al_2O_3 . Without heavy vegetation the waters over soils rich in CaO were also rich in K_2O . Without adequate CaO rich in the soil, the P_2O_5 becomes bound by insol. Al and Fe compounds and does not enter the cycle soil-water-plankton-fish. Addition of P_2O_5 to soils with inadequate CaO are ineffective until the soils contain at least 1500 mg CaO per kg.

Frank Matosh

CA

15

The nutrition and fertilization of elm Antonin Sénye
and Sergej Borzov. *Sbornik Českoslov. Bot. Ústředí* 18, 340-86 (1943-44) (Publ. 1947). *Bot. Ústředí* 21, 1222
(1947). On the basis of a previous soil analysis, the amts
of fertilizers applied were chosen in such a way that the amts
of P and K in the superficial layer of the soil were brought up
to optimum. The fertilizer treatment (850 g Ca
phosphate contg. 28% P₂O₅ and 197 g potash salt
contg. 40% K₂O, per 5 sq m bed surface) caused an av.
increase in the height of 3-yr. old elm seedlings of 15.9%.
The fertilizers had very pronounced effects on the N
and mineral content of seedlings. The fertilized plants
showed a significant increase of P content in the leaves
and roots. the largest increase was noted in the content
of K in all the organs of elm plants. M. F. R.

ASB 54.6 METACATALOGUE LITERATURE CLASSIFICATION

11 D

Chemical composition of the seeds of conifers. Antonin Nérace. *Lanshild Price* 23, 65-75 (1944); *Biol. Abstr.* 21, 208 (1947); cf. *C.A.* 42, 730d. —Seeds of the following native and exotic conifers were analyzed for ash content and compn.: *Picea abies*, *Picea sibirica*, *P. austriaca*, *P. banksiana*, *P. strobus*, *Abies alba*, and *Larix europaea*. Ash content was: Jack pine 9.8-10.4; Scotch pine 7.9-8; spruce 4.2-4.9; white pine 4.5; Austrian pine 4.1; fir 2.8-3.2; and larch 2.8%. P_2O_5 content of the seed (by wt.) ranged from 0.8% for larch to 2.6% for jack pine; K_2O from 0.5% (spruce) to 1.3% (larch); MgO from 0.3% (fir) to 0.75% (Scotch and Austrian pines); and CaO from 0.04% (white and Austrian pines) to 0.24% (jack pine). SiO_2 content was 5-6.2% for jack pine, fairly high for Scotch pine, and very low for fir, Austrian pine, and larch (0.2% for larch). Fir and Austrian pine, which grow on soils rich in lime, had the lowest MnO content (0.03-0.05%); jack and white pines, which grow on acid soils, had the most (0.22 and 0.13% resp.). Production of a full seed crop in a 100-yr.-old pine stand requires 5 times as much P_2O_5 as is needed for the annual wood increment; for spruce, 3 times as much. Seed production of conifers depends on the supply of mineral nutrients, especially P_2O_5 and K_2O , in the soil. This is reflected in the periodicity of seed crops. Species requiring the most nutrients (pine and spruce) have longer intervals between crops than those that require less. M. F. R.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

COMMON ELEMENTS		SPECIES AND PROPERTIES INDEX		METALLURGICAL LITERATURE CLASSIFICATION	
CA		The chemical composition of the seeds of deciduous forest woods. A. Němec (Ústav lesní biochem. pedol., Praha-Dejvice, Czechoslovakia). <i>Lesnická Práce</i> 25, No. 1/2, 7-20(1940); <i>Biol. Abstracts</i> 21, 715(1947). —The highest ash content was found in the seed of Norway maple and European elm (6.5 to 9.0%), the medium content is in the seed of basswood, ash, beech, hornbeam, black locust, and European spindle tree (3.8 to 5.4%); the lowest content is in oaks (1.7 to 2.4%). The fruits of white birch and black alder showed a medium ash content (3.8 to 4.5%). In general, the seed of all deciduous species was found higher in K_2O and CaO, but lower in SiO_2, P_2O_5, and MgO, than the seed of conifers. Among deciduous species, the seeds of maple and elm have the highest contents of K_2O, P_2O_5, and CaO. The lowest content of K_2O is shown in the seed of oak and spindle tree, and the lowest content of P_2O_5 is in the seed of oak and beech. The lowest content of CaO is found in the seed of oak and black locust, and in the fruit of birch. The seed of elm and the fruit of birch are conspicuously high in SiO_2, while the seeds of maple and oak are very low in SiO_2. The amt. of mineral substances utilized by beech during the seed year (352.0 kg per hectare) considerably exceeds that needed for the annual production of wood. The beech seed consumes 3 times more P_2O_5 and 2 times more K_2O than necessary for wood production. The consumption of CaO by the seed, however, is lower than by the wood. The high nutrient requirements of beech for the development of seed explain the 6- to 8-yr. intervals between the seed yrs. of this species. M. F. R.		112	

VENN, A.

James, James, A. Geostrophics. On forces forming the surface of the earth. O. shch. 1406 (form. 1406). (1942). 210 pp., 74 illus.

One of the basic textbooks on geostrophics with thorough discussion of forces forming and affecting the surface of the earth and their mechanical and mathematical relationships. It is a new presentation of material described in the author's book "Law of the earth" (1935). Three basic mechanical forces acting upon solid and fluid masses of the earth—gravity, centrifugal, and circulating forces—are discussed and mathematically interpreted in chapters under following titles: IV. The shape of our earth, the specific gravity (thickness of solid surface (bottom here), variation of temperature with the depth, fluid surface, and core. V. Gravity forces, problems of gravity forces in a hollow sphere, spherical strata of earth, and their mechanical relationships. VI. Rotation (application of Archimedes' law to conditions of floating earth surface and mathematical relationships). VII. Tangential forces. Analysis of centrifugal forces due to rotation and circulation, circulation in the atmosphere. VIII. Flow of fluid masses, effect of pull on of gravity forces on the atmosphere, effects of winds on ocean currents (Libya, Gulf). IX. Endogenous effects and forces. X. Orogenic forces. XI. Synclinal surfaces and their origin. XII.

CP

1/2

(C.V.E.)

A. N. 1136

(3-2-2)

Cascade forces cause tidal waves which, in accordance with statistical theory of geophysics, are calculated to be 31 1/2 in. Assuming dynamic equilibrium, the maximum tidal wave is 72 in high, which corresponds with reality.

The author discusses the effects of oceanic forces, movement of the plates, spiral forces, and conchoidal. The described chain of interrelated facts is based on dynamic equilibrium of the inhomogeneous surface of the earth. This equilibrium is caused by three cascade forces normal each to the other: (a) equilibrium of vertical forces indicates gravitational deviations, which are in connection with transgression and regression of the sea, i.e., movements of continents in the vertical sense by hundreds of feet; (b) equilibrium of meridional forces as origin of "alpine" orogeny and of movement of the poles; (c) equilibrium along the parallels, instrument for the discovery of orogenies along the meridians (Cordillera, Ural), which primarily causes the epirophenesis.

Final conclusions: (1) It is the task of geophysics and geodynamics to serve as a basis for current conceptions in geological development of the earth; (2) the knowledge of pertinent laws will contribute to a successful solution of geodynamic problems; (3) complex mechanical analysis (not only static but also dynamical) of equilibrium of the earth will fulfill all requirements expected from geophysics.

J. J. Polivka, USA

NEMEC, ANTONIN

Hnojení lesních kultur; lesní školky. (Praha, Prazada, 1948) 216 p. (Radce zemědelce, 68) (The manuring of forest cultures; forest nurseries. illus. bibl.)

CtY

Not in DIC

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4, April 1958

1ST AND 2ND ORDERS		PROCEDURES AND PROPERTIES INDEX		3RD AND 4TH ORDERS	
<i>Causes of growth retardation of forest pine stands in the Svalbard region during war conditions and post-war. A. K. Kozlov. (Izv. Vsesoyuzn. Nauch. Ts. 1944, No. 2, 88-89; Soil & Plant, 1961, No. 174) — Deficient soil-moisture during C-winter and post-winter in the lower horizons are partly responsible, but the chief cause of growth retardation in the pine is soil degradation. Acidification, Ca deficiency, and a high content of readily and toxic Al characterize the upper horizons to which the roots were confined, although lime occurs in the lower horizons. The toxic effect of Al was counteracted by increased Ca uptake or, in Ca-deficient soils, by removal of Ca from the bark, the latter resulting in nutritional disturbances. Liming, use of N fertilizers where necessary, and inter-cultivation with <i>Lupinus polyphyllus</i> to improve the N status of the soil are recommended.</i> B 3-1					
ASAC SLA METALLURGICAL LITERATURE CLASSIFICATION					

NEMEC, Antonin

Chemical Abstr.
Vol. 48 No. 6
Mar. 25, 1954
Soils and Fertilizers

(2)
Influence of beech on the quality of forest soils in the territory of square sandstones. Antonin Nemeček (Březová vyhledávací území, Praha-Děčín, Czech.). *Stavba Čechoslovenska. Abstr. Zemědělství* 24, 42-47 (1953).—Monoculture of pine in the 2nd generation intensively degrades sandy soils resulting from square sandstones of the chalk formation. In Zahrov (Northeast Bohemia) podzol horizons with a continuous hardpan layer have formed under a 70-year-old monoculture of pine. The plant cover causing the degradation consists of 75% *Vaccinium myrtillus*, 20% *V. vitis-idaea*, and 5% *Festuca*; the moss cover consists of 80% *Leucobryum album*, 15% *Polypodium formosum*, and 5% *Gadus*. The dead soil cover is 4-5 cm. thick and consists of raw humus; below this is a 25 cm. thick "A" horizon of leached-out soil which is over a soft layer of humus-ferrous hardpan 5 cm. thick. The "B" horizon, below the hardpan, is 25 cm. thick and is composed of weathered square sandstones. The acidification of the soil profile by raw humus results in an exchange acidity which is harmful to the growth of young forest plants. The soil profile lacks lime, magnesia, and potash; they are leached from the "A" horizon and accumulate in the underlying "B" horizon. H_2PO_4 is translocated from the "A" horizon into the horizon layer which is enriched with Al and Fe compounds, and silicon in easily sol. forms. The soil beneath the beech tree is covered with a continuous layer of beech leaves on a surface of about 400 sq. m., and the growth of *Vaccinium* is practically prevented. The soil profile is similar to normal brown forest soil but with slight podzolization. The acidity of humus and mineral soil layers is lower, and the soil horizons are richer in easily sol. forms of lime, magnesia, potash, and phosphoric acid. The comparison of both soil profiles proves that the beech is able to protect the soil against extreme acidification and degradation.
Jan Mlýna

CA

15

Study of a serpentine forest soil with regard to its chromium content and to the resorption of chromium by a stunted-pine stand. Antonín Němec (State Research Inst. Forestry Production, Prague). *Shornik Odesk. Univ. Zestav. 24*, 395-404 (1951) English summary. The slightly acid soil is apparently degraded with the content of mineral nutrients reduced up to the depth of 70 cm. however, it is satd. with Mg and Al. Up to 11 times as much sol. Mg is present as sol. Ca which has been leached out and deposited in a lower strata of the soil. The upper profile of the soil is also very low in K, P, Fe, and Si. Al is highest in the upper strata and drops with the depth. The Cr content was studied in needles, bark, and wood of the pine. Strikingly high limits of Cr were found in the top portions, e.g. the youngest, of the tree. This Cr content as a possible reason for stunted growth requires further proof as the toxicity limits of Cr and other micro-elements in the organisms of forest vegetation are not yet known.
L. A. Helwach

26

CA

Contents of oil and mineral substances in the seeds of
yew and fir. Antonin Němec (State Research Inst. Paper-
try Production, Prague). *Sborník Československé Zemědělské*
26, 419-21 (1951) (English summary). The undried seeds
of the yew *Taxus baccata* contain 68.5% oil, which is about
double the amt. in fir seeds. The K content of the yew seed is
the highest among the conifers, P is considerably higher
than in fir seeds but still lower than in the pine seeds, Mg
content seems the same as in the fir seeds and Ca is rela-
tively high, approaching the level in pine seeds. Its Si is
the lowest among the conifers. The pericarp of yew seeds
shows also the domination of K and P. L. A. Helwich

CA

Amelioration of a degraded forest soil by diabase powder in the forest district Choltice. Antonín Němec (Výzkum ústav pro lesní výrobu, Prague, Czech T. Šterník (Zřídlovice, 25. 55. 111. 1102). The stunted growth of *Abies Zambellii* in the district Choltice, Czech in pine and forest cultures of the district Choltice, Czech is caused by an impoverishment of upper soil horizons in CaO , MgO , K_2O , and P_2O_5 which were carried down into the subsoil layers (50 to 70 cm.). The soil profile is azonal, consisting of sand and clay, turning in the depth of 70 cm. into a loamy sand. To ameliorate this soil diabase rock from the quarry Choltice, composed of 8.78 11.12 CaO , 2.91 4.71 MgO , 1.26 2.34 K_2O , 0.26 0.81 P_2O_5 , and 43.80 45.75% SiO_2 , was applied in a 1-2 cm. layer on the soil. After 2 years a very considerable increase in growth was observed in the red oak and small-leaved lime tree. In another less favorable expt. 2 kg. of powder rock was given individually to each plant in a compact layer on the bottom of the planting hole. However, if applied the same way, but mixed with humus the results were very favorable. An increase of the resorption of mineral nutrients by the leaves of oak and the needles of larch has been observed several years after the diabase powder had been applied. Jan Míček

1851. Lame, A. Dynamis equilibrium of the earth—the
 dynamical geophysics (Dynamische geophysik).
 Braunschweig, Vieweg, 1904. 112 pp. 1/2 illus.

The author concludes in his opinion that the existing ap-
 proaches of the present theory to solve all problems of geo-
 physics (see preceding review) are: it is impossible to solve the
 problems relating to dynamical equilibrium of the earth, and that
 any other solution is based on hypotheses which cannot be
 substantiated by physical facts. His opinion has been confirmed
 by A. Michelson, professor at Michigan University, in his recent
 work, "The possibility of geophysics," 1903. He also states cer-
 tainly that the hypothesis and refers to two different problems
 of geophysics in the earth's surface (Airy and Pratt).
 In the case of the fact that our half of gravitational acceleration
 is caused by masses filling the space of the horizontal sphere whose
 diameter is equal to the radius of the earth, it can be proved that
 the inhomogeneity of the earth's surface does not affect the gravita-
 tional acceleration, no matter whether Airy's or Pratt's theory is
 assumed. If the earth's surface is in static equilibrium. For this
 reason the very often used solution of the gravitational accelera-
 tion of bodies constructed on the principle of static equilibrium

(G.V.P.)

A. N. 100 (1952-3)

Epigenesis (movements of solid surface). XIII. Movement of plate during growth of the earth. XIV. Origin of continents and oceans. XV. Influence of gravity (drives their motion). XVI. Influence of gravity (drives their motion). XVII. External effects of forces (tectonic and orogenic forces) of organic and inorganic origin. Atmosphere, hydrosphere, biosphere, water, its properties and forms, effects of minerals, gases, the thermal and biological properties. Effect of water on civilization and culture. References are made to research and publications by J. C. Smith, L. C. Smith, H. C. Smith, J. C. Smith, H. C. Smith, W. C. Smith.

The book presents basic principles of geophysics in relation to dynamic forces. Relations between the features of the earth and agencies producing them are represented by laws of mechanics of solids. It is intended for study, research, and work in various fields of geology, climatology, oceanography, hydrography, and other sciences.

J. J. Polivka, IIIA

AK

Q

NEMEC, A.

Improvement of cultivated forest stands on degraded soils by
covering with brushwood and diabase fertilizers. p. 825.
SBORNIK, RADA LESNICTVI. Praha. Vol. 28, no. 6, Dec. 1955.

SOURCE: East European Accessions List (EEAL) Library of Congress
Vol. 5, No. 7, July 1956.

NEMEC, ANTONIN

Meliorace degradovanych lesnich pud. (Vyd. 1.) Praha, Statni zemedelske
naki., 1956. 291 p. (Lesnicka knizovna. Mala rada, sv. 64) (Reclamation
of degraded forest soils. 1st ed. illus., bibl.)
CU Not in DLC

SO: Monthly Index of East European Accession (EEAI) LC, Vol. 7, No. 5, May 1958

NEMEC, A.

A study of damage caused by smoke in the forests situated in the vicinity of the
Ceska Kamenice paper mills. p. 33. (SBORNIK RADA LESNICTVI. Praha) (Vol. 30,
no. 1, Jan. 1957)

SO: Monthly List of East European Accession (EEAL) LC, Vol. 6, No. 7, July 1957. Uncl.

NEMEC, A.

Effect of smoke and cinder on the intoxication of spruce growths. p. 397.

SBORNIK. LESNICTVI. (Ceskoslovenska akademie zemedelskych ved.) Praha, Czechoslovakia, Vol. 4, no. 5, May 1958.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, no. 11, Nov, 1959
Uncl.

NEMEC, Adolf, inz.

1. USTŘEDNÍ KONTROLNÍ A ZKUSEBNÍ ÚSTAV ZEMĚDĚLSKÝ, PRAHA

Results of the 1st cycle of agrochemical soil testing in
Czechoslovakia. Rost výroba 9 no.11:1193-1208 N '63.

1. Ustředni kontrolni a zkusebni ustav zemedelsky, Praha.

L 3324-66 EMP(t)/EMP(b) JD

ACC NR: AP5027872

CZ/0034/63/000/002/0092/0096

14
B

AUTHOR: Engel, Adolf (Engineer)

TITLE: Evaluation of the effects of open-hearth and blast-furnace slag on the yields of agricultural products

SOURCE: Hataicks listy, no. 2, 1965, 92-96

TOPIC TAGS: slag, metallurgic furnace, fertilizer

ABSTRACT: The effect of finely ground open-hearth slag and blast-furnace lining slag on the yield of agricultural products has been compared in field trials with the effect of ground limestone. For ground limestone, open-hearth slag and blast-furnace lining slag the average increases in yield were 0.61, 0.70 and 0.86 respectively and the increases in profit were 299%, 423% and 518% respectively. Orig. art. has 8 tables.

ASSOCIATION: Ústřední kontrolní a zkušební ústav zemědělský, Prague (Central Agricultural Control and Testing Institute)

SUBMITTED: 00

ENCL: 00

SUB CODE: ES, MS

NO REF SOV: 000

OTHER: 000

JPRE

Card 1/1 SP

Z/032/61/011/006/004/004
E073/E335

AUTHOR: Němec, A.

TITLE: Lubrication Properties of Pure Molybdenum
Disulphide and Its Application

PERIODICAL: Strojírenství, 1961, Vol. 11, No. 6,
pp. 462 - 465

TEXT: General information is given on the use of molybdenum disulphide-containing lubricants. In addition to giving general information on the specific properties, the author indicates the conditions under which molybdenum disulphide is more effective than the more conventional lubricant additives. It is stated that the article is based primarily on information published outside Czechoslovakia and therefore the data given are intended to serve only as guide values. He deals with the use of MoS_2 in the form of powders, pastes, varnishes, as additives to conventional lubricants and as additives to greases. MoS_2 is favourable particularly for boundary lubrication. In contrast to other additives, it has no chemical effect but protects the surface

Card 1/2

✓

Lubrication Properties of

Z/032/61/011/006/004/004
E073/E335

of components by forming a lubricant film. There are
13 non-Czech references. The English-language reference
is: Ref. 3 - Bowden, F., Tabor, D. The Friction and
Lubrication of Solids. Oxford University Press, London, 1954.

ASSOCIATION: Šmeralovy závody, Brno
(Šmeral Works, Brno)

Card 2/2

5/716/63/000/002/044/052
A052/A126

AUTHOR: Nikolaev, A.

TITLE: Technological lubricants in hot stamping

PERIODICAL: Referativnyy zhurnal, Tekhnologiya mashinostroyeniya, no.2, 1963, 10, abstract 2V66 (Nepriyatnyy, v. 4, no. 3, 1962, 81-84, Czech; summaries in Russian, English, German and French)

TEXT: Various lubricants used in hot stamping were investigated and the results are given of investigations in which the stamping force with various lubricants, the adhesion between stamp and the processed material, the pressure in the stamp, and the tool wear were determined. The following problems are discussed: the physical side of the friction process in stamping and factors affecting the endurance of stamps; chemical composition, the structure and hardness of working surfaces of the stamp; the temperature of working surfaces, micro- and macrogeometry of the tool; the composition of lubricants, the temperature of stamped material and the quality of its surface; chemical composition and structure of stamped material, the pressure on contacting surfaces, the mutual sliding speed. 6

Card 1/2

Technological lubricants...

3/276/63/000/002/044/052
A052/A126

groups of lubricants are analyzed: 1) solid lubricants, - water and oil suspensions; 2) liquid lubricants - mineral and organic oil, oil emulsion, synthetic materials; 3) consistent lubricants - oil thickened by soaps; 4) sawdust; 5) salts (NaCl, Na₂CO₃, saltpeter, special salts, phosphates); 6) glass. Dependence diagrams for solid lubricants are given: the wear of stamps due to the pressure of steam liberated from lubricants; temperature friction coefficient for graphite lubricants and MoS₂ lubricants, and friction coefficient due to pressure and sliding speed. It is established that: 1) the wear of stamps is higher at a higher steam pressure; 2) the friction coefficient decreases with an increase in temperature and pressure in the case of graphite lubricants in the case of MoS₂ it remains constant and equal to 0.2 up to 800°C after which it increases sharply to 0.5, at a pressure of 70 kg/mm² it decreases to 0.025 and increases again to 0.4 as the pressure increases to 280 kg/mm²; 3) the sliding speed affects the friction coefficient negligibly. The latter diagram is plotted for the pressure of 88.5 kg/mm²; for graphite lubricants the friction coefficient at a speed of 4 m/sec is equal to 0.18 and at 40 m/sec to 0.23; for MoS₂ lubricants the respective values of friction coefficient are 0.13 and 0.07.

(Abstractor's note: Complete translation.)

V. Kovalenko

Card 2/2

NEMEC, Adolf

Effect of lubricants on the life of service of dies. Ropa a
uhlie 5 no.1:20-26 Ja '63.

1. Svernovy zavody, Vyskumny ustav teskeho strojirenstvi, Brno.

NEMEC, Ad.

Lubrication in wire drawing. Rope a uhle 6 no.2:57-58 F 162.

1. SZ - Vyzkumny ustav tezkého strojirenatvi, Brno.

NEMEC, Ad.

Use of molybdenum disulfide in wire drawing. Ropa a unlie
7 no.3:91-93 Mr '65.

1. Research Institute of Heavy Engineering of the Svermovy
zavody, Brno.

38762-66 EWP(k)/T/EWP(v)/EWP(t)/ETI HM/JD

ACC NR: AP6029571

SOURCE CODE: CZ/0057/65/000/009/0396/0402

AUTHOR: Nemec, Antonin

ORG: MHD, Prague

TITLE: Renovation, the way to decrease the costs and save metal in maintenance operations

SOURCE: Hutnik, no. 9, 1965, 396-402

TOPIC TAGS: cost estimate, electroslog welding, automatic welding, arc welding, welding electrode

ABSTRACT: Renovation is the technique of restoration of a part or an entire piece of machinery to its original shape. Advantages of using automatic welding processes as compared to manual welding in this operation are discussed. The techniques used in renovation welding are evaluated: automatic welding under a layer of flux; electroslog welding; automatic and semiautomatic welding in an inert atmosphere; automatic welding by an electric arc protected by a melted electrode; manual welding. Cost of metal used in these operations, and the total cost of the individual processes are discussed. Workers at VUZ, Bratislava, also participated in this work. Orig. art. has: 7 figures and 4 tables. [JPRS]

SUB CODE: 13, 05 / SUBM DATE: none

Card 1/1

0917 2665

AM

Náncz (B.). *Tumoren an den Wurzeln der Platanen.* [Tumours on the roots of Platan.]—Reprinted from *Věstník Král. Čen. Spol. Nauk*, ii, 13 pp., 16 figs., 1929. [English summary. Received August, 1930.]

Full details are given of the author's histological and cytological examination of the pea- to walnut-sized tumours found on the roots of plum trees in various districts of Czecho-Slovakia.

In view of the necessity of differentiating between bacteria and mitochondria, the material was fixed with two preparations, viz., (1) 100 c.c. chromic acid and 8 c.c. neutral formalin, and (2) 50 c.c. potassium bichromate, 50 c.c. chromic acid, and 8 c.c. neutral formalin. The former proved very satisfactory for the fixation of bacteria but less so for that of the mitochondria, while the latter was equally good for both. Heidenhain's haematoxylin stained both bacteria and mitochondria, while the Gram process was also useful for the former. In plum trees there is little risk of confusing bacteria and mitochondria, but in the tumours of other plants it may be necessary to use Milovidov's differential stain (*Arch. d'Anat. Micr.*, xxiv, 1928).

The cytoplasm of cells in the tumours was found to contain various types of bodies, viz., weakly staining, minute fibres, often swollen at one end (mitochondria); globular or ellipsoid structures

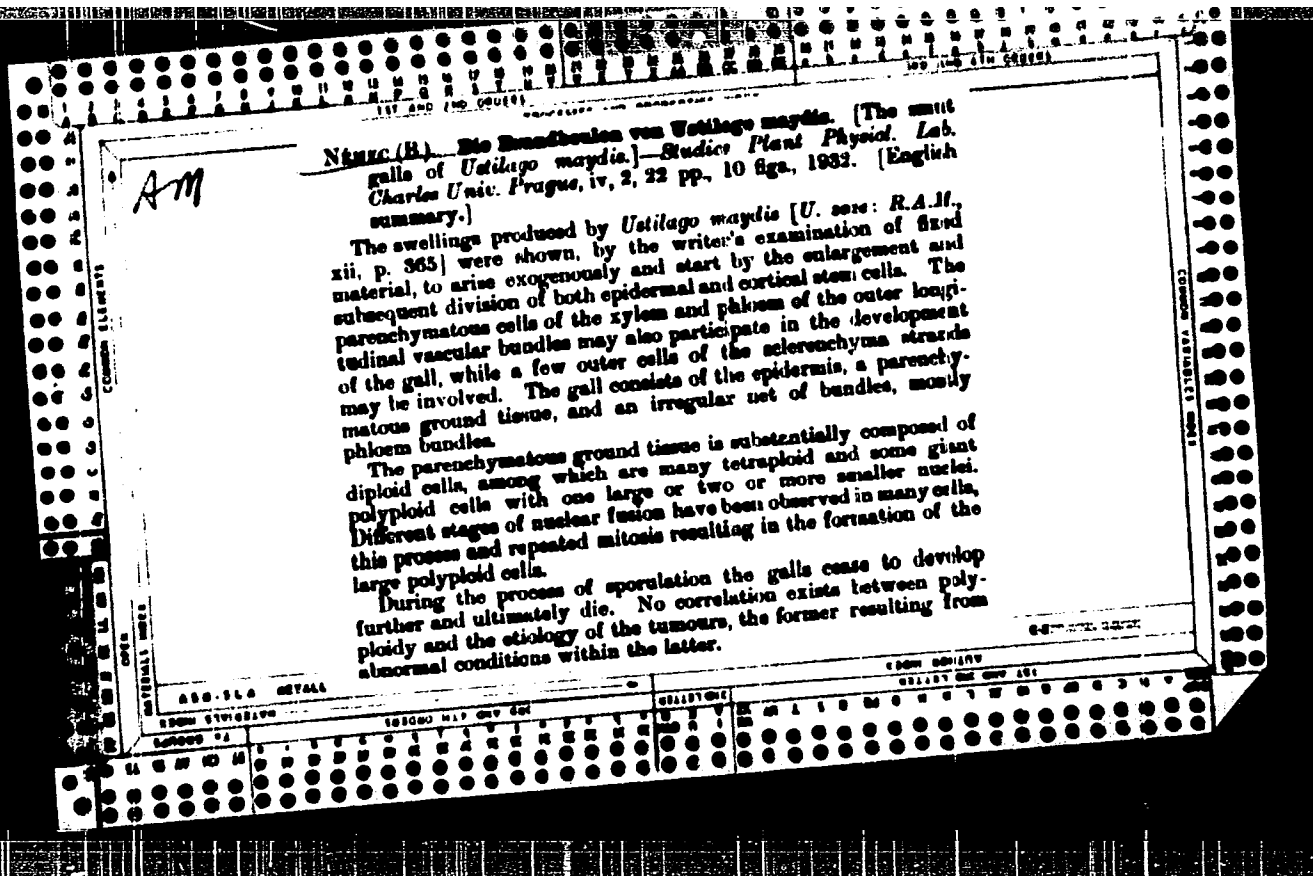
(leucoplasts, non-stained rods, threads, or grains, slightly thicker than the mitochondria and mostly collected in groups or sometimes forming long strands. The last-named bodies are evidently bacteria, as indicated by their fairly uniform shape and occurrence in aggregations instead of being diffused through the cytoplasm, as in the case of chondriosomes. In sections stained by Milovidov's differential method, the mitochondria are red and the bacteria blue. The bacteria were detected mostly in the peripheral cells of the tumours, though a certain number also occurred elsewhere, i.e., in the older parenchyma cells, the long promeristematic cells of the vascular bundles, the parenchymatous sheath of the latter, the sieve-tube and their companion cells, and the meristematic cells of the interfascicular cambium, when present. No bacteria were observed in the intercellular spaces.

It was not possible to determine the manner in which the bacteria spread from cell to cell, whether by actual migration through the cell walls or by passive dispersal through the division of the cells in which they are contained.

[The nature of the tumours is not specified, but they appear to

002

have been taken as probably crown gall, caused by *Bacterium tumefaciens*.]



1ST AND 2ND DEGREE
PROCESSES AND PROPERTIES INDEX
11D

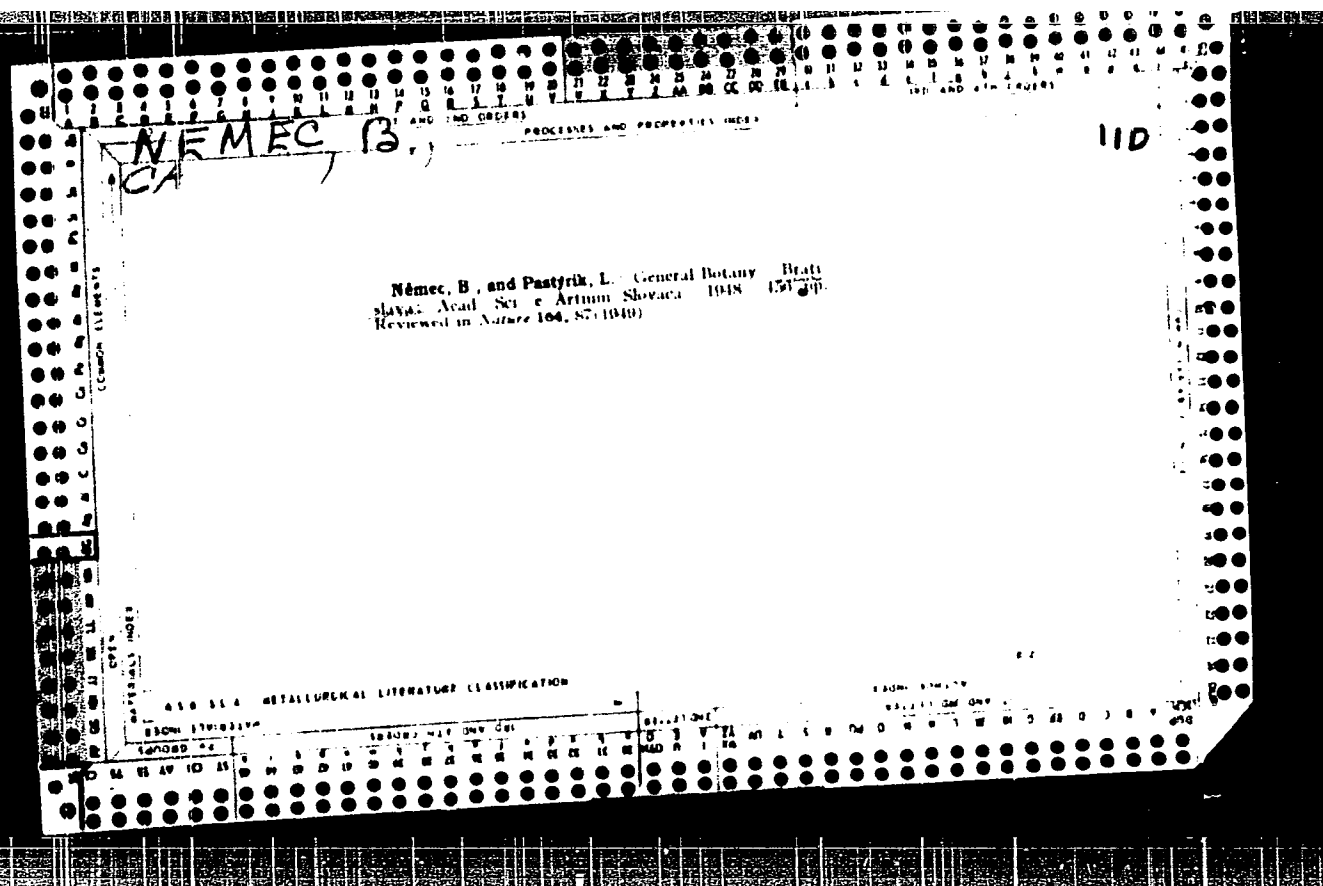
24

Recent observations in plant physiology and agriculture
 Holmull Nömes. *Lett. Chém.* 20, 292 (1944). N
 ascribes to the microelements a dynamic role in the physiol-
 ogy of sugar beets, and believes that they change the phys-
 ical state of colloids, thus participating in all cellular exchanges,
 serve as toxins or antitoxins, function as regulators of hor-
 mones, act as catalysts in biochem. reactions, alter the
 turgor and permeability of protoplasm, behave as carriers
 of elec. charges or radioactive forces. A deficiency of B
 leads to the decay of the beet center which can be abolished
 by adding of borax to the soil. Zn and Cu retard oxida-
 tions and reductions. Si is a necessary constituent of beets.
 Although Al and Mn have a stimulating effect upon sugar
 beets, N. estimates that the quantity of Mn necessary to
 produce the stimulating effect represents only about
 one mol. per cell and that the Mn may be in the nucleus or
 chromosome.

Frank Maresh

ASD-24 METALLURGICAL LITERATURE CLASSIFICATION
8-2

SECTION DIVISION
SECTION DIVISION



NEMEC, B.

Ivan Malek's Boj noveho se starvm v dnesni nasi vede (Struggle of the New and the Old
in Our Contemporary Science). a book review. p. 637

Vol. 4, no. 10, Nov. 1955
CESKOSLOVENSKA BIOLOGIE
Praha, Czechoslovakia

So: Eastern European Accession Vol. 5, No. 4, 1956

Nešec Bohumil
CZECHOSLOVAKIA/General Division. General Questions. Philosophy. Methodology. A-1

Abs Jour: Ref. Zhur. Biologiya, No 4, 1958, 14096.

Author : Nešec Bohumil

Inst :

Title : ~~Ten Years of Czechoslovak Botany~~

Orig Pub: Preslia, 1955, 27, No 2, 113-123.

Abstract: The basic routes of the development of biology since 1939 are set forth, through the occupation, liberation, the organization of the Czechoslovak Academy of Sciences, the formation of scientific institutes and journals.

Card : 1/1

-10-

NEMEC, J.

Evaluating the conference of specialists on photosynthesis held on March 12-14,
1956 in the House of Scientific Workers in Liblice. p. 331
(CESKOSLOVENSKA BIOLOGIE, Vol. 5, No. 6, Nov 1956, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EML) LC, Vol. 6, No. 12, Dec 1957. Incl.

COUNTRY : Czechoslovakia
 CATEGORY : Cultivated Plants. Fruits. Berries. Nuts. Tea. M
 ABS. JOUR. : RZhBiol., No. 4, 1957, No. 15780
 AUTHOR : Nemeo, Bohumil
 INST. :
 TITLE : Physiology of Graftings.

ORIG. PUB. : Ziva, 1957, 5, No. 2, 41-43

ABSTRACT : The history is set forth of the development of means of grafting in fruit growing. Noted is the influence of the rootstock on the fruit bearing, character of fruits, direction and rhythm of the growth of the scion. The possibility of developing vegetative hybrids is subject to doubt. Many new forms described as grafting hybrids can, in the author's opinion, be regarded as modifications and mutations accompanied by the growing together of graft components. At the same time the rise of chimera is also possible. It is, in passing,

Card: 1/2

138

NEMEC, Bohumil

CZECHOSLOVAKIA / General Division, History, Classics, Personnel

A-2

Abs Jour : Ref Zhur - Biol., No 1, 1958, No 42

Author : Nemec, Bohumil

Inst : Not Given

Title : Carl Linnaeus (On the 250th Anniversary of His Birth)

Orig Pub : Prirod. vedy skole, 1957, 7, No 5, 385-390

Abstract : No abstract

Card : 1/1

NEED, B

"Linne's Philosophia botanica; a book review."

BIOLOGIA, Bratislava, Czechoslovakia, Vol. 13, no. 6, 1958

Monthly List of East Europe Accessions (EEAI), LC, Vol. 2, No. 6, Sept 59
Unclass

NEMEC, Bohumil, prof., dr.

On mixoploid root caps. *Biologia plantarum* 3 no.4:253-264
'61.

1. Mitglied der Tschechoslowakischen Akademie der Wissenschaften
(Praha - Smichov, Na Vaclavce 1138).

NEMEC, Eohumil (Na Vaclavce 7, Praha-Smichov)

Doubling ability of polyploid cells and the restitution of
mixoploid root tips. Biologia plantarum 4 no.3:161-169 '62.

*

NEMEC, Bohumil (Praha - Smichov, Na Vaclavce 7)

Germination and development of mixoploid lateral roots. *Biologia
plantarum* 4 no.4:261-268 '62.

HEMEC, Bohumil, inz.; VRBA, Petr, inz.

Problems of global and special coordination of the transportation services. Doprava no.12:401-403 '62.

NEMEC, Bohumil, prof.

Professor K. Hruby; obituary. Biologia plantarum 5 no.2:87-88 '63.

PARTYK, Jan, doc. inz. dr.; NEMEC, Bonumil, inz. CSc.

Methods of depreciating automobile rolling stock. Poprava
no. 5:369-376 '64.

NEMEC, Bohumil (Praha - Smichov, Na Vaclavce 7)

Healing processes of crushed root caps. Biologia
plantarum 6 no. 2:73-78 '64.

1. Czechoslovak Academy of Sciences, Prague, Chief Editor of
"Biologia Plantarum."